

## EXECUTIVE SUMMARY

### PURPOSE AND NEED FOR THE PROPOSED ACTION

The purposed action would help to sustain the missions and requirements for the Morale, Welfare, and Recreation (MWR) program, the Fort Detrick Security, Plans, Operations, and Force Protection (SPO), the Provost Marshal Office (PMO) and the U.S. Military Affiliate Radio System (MARS).

The *purpose* of the proposed action is to provide improved and increased community services in a quality Army community that is convenient to duty and work stations, to provide mission responsiveness, and to add to the soldiers' quality of life; to provide a facility where the Fort Detrick Police Department and military personnel can train and perform their annual small arms recertification; to continue reliable regional MARS operations, which provide adjunct communications that are important during periods of local, national, and international emergencies; and, by modifying the perimeter fence, to provide security enhancements to ensure adequate force protection, land security, and safety measures for Area B at Fort Detrick.

The *need* for the proposed action results from the mission and objectives established by the Directorate of Community Services at Fort Detrick and the fact that the proposed recreational activities are not currently provided at Fort Detrick. The installation community is currently going outside Fort Detrick to use privately owned golf courses, paintball fields, paintball fields, and indoor/outdoor shooting and skeet ranges, which incurs higher costs and requires transportation. Military personnel that are stationed at Fort Detrick for a short period of time do not have the knowledge of, and in some instances, the transportation to recreational facilities located outside of Fort Detrick. This inconvenience can adversely affect the morale and overall quality of life for these individuals. The Indoor Shooting Range will provide a multi-purpose range that will allow soldiers, police, and guards to practice marksmanship proficiency and complete annual small arms recertification requirements, as required under AR-190-14 – *Carrying of Firearms and Use of Force for Law Enforcement and Security Duties*. The range will also eliminate required travel to other indoor or outdoor shooting ranges within the northern Maryland and southern Pennsylvania regions, and concerns regarding the use of outdoor shooting ranges during inclement weather. The four closest recreational vehicle (RV) Parks in the Army network are located between 60 and 85 miles from Fort Detrick. These locations are too inconvenient for military personnel and other authorized users to utilize for current and proposed recreation activities at Fort Detrick, or to use to visit local area attractions. Relocation of the seven MARS antennas from Area A to Area B is necessary as a result of projects and land use changes identified in the *EA for the Installation Master Plan for Fort Detrick, Maryland*. The perimeter fence enhancements are needed to comply with AR 325-13, which states that “commanders will ensure that [antiterrorism] specific security procedural and physical measures are employed to protect personnel, information, and material resources from terrorist threats.”

## **PROPOSED ACTION**

The proposed action (Alternative I, the preferred alternative) and subject of this EA is to construct and operate the six following proposed projects on Area B at Fort Detrick, Maryland:

- 18-Hole Golf Course,
- Indoor Shooting Range,
- Paintball Fields,
- RV Park,
- Relocation of seven antenna towers from Area A to Area B, and
- Area B Perimeter Fence.

Fort Detrick is considering the use of approximately 150 acres of Area B for these facilities. The implementation of the six proposed projects would require the modification of the recently completed 2003 Installation Master Plan EA for U.S. Army Garrison (USAG) Fort Detrick.

## **ALTERNATIVES**

Two alternatives to the proposed action were identified:

- Implement the six proposed projects as indicated in Section 2.0; however, locate the Indoor Shooting Range directly west of the Nallin Farm Park in Area A.
- Do not implement the six proposed projects in Area B at Fort Detrick, Maryland (No Action Alternative as required by CEQ regulations).

After further consideration it was determined that locating the Indoor Shooting Range in Area A was not a feasible alternative (see Section 3.2.3 Alternative Eliminated from Further Consideration). As a result, the alternatives evaluated in this EA include: Alternative I – The Proposed Projects and Alternative II – The No Action Alternative.

## **ENVIRONMENTAL AND SOCIOECONOMIC CONSEQUENCES**

Environmental and socioeconomic consequences are summarized in Table ES-1.

## **CONCLUSION**

The primary issues related to the implementation of the six projects are: 1) total ground disturbance associated with the proposed development of the six projects (particularly with regards to the construction of the 18-Hole Golf Course); 2) the location of three areas of environmental concern (e.g., hazardous waste sites) within the proposed location of the golf course; 3) approximately 12 acres of additional impervious surfaces to Area B; 4) noise related to the operation of the Indoor Shooting Range; and 5) the power supply transmission line from Area A to Area B is nearing capacity.

No significant impacts are predicted. Potential impacts appear to be minor, either through avoidance, minimization, or best management practices, by using currently available techniques and procedures. Table ES-2 provides a summary of the proposed mitigation measures for each of the affected resources.

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TABLE ES-1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES

Resource	18-Hole Golf Course	Paintball Field	Indoor Shooting Range	Recreational Vehicle (RV) Park	Relocation of Seven High Frequency Antennas	Area B Perimeter Fence	Combined Effects	No Action
<i>Topography Geology and Soils</i>	Direct, short-term and long-term, minor adverse effects to geology, topography, and soils would be expected. As much as 125 acres of Area B would be disturbed during the golf course development. Proper design and implementation of soil erosion and sediment control practices would reduce potential for adverse effects associated with erosion and sedimentation. FD REG 415-10, Maryland Soil Erosion and Sediment Control Regulation, and Maryland Stormwater Guidelines would be followed to reduce adverse impacts. Proper geotechnical and subsurface characterization would minimize potential impacts resulting from sinkhole development.	Impacts to topography and geology would be negligible. Direct, long-term, minor impacts to soils would be expected. Implementation of soil and erosion control measures consistent with Fort Detrick and Maryland State regulations and guidelines would reduce impacts. Implementation of a stormwater management plan would minimize potential for soil erosion, stream channel scour, and sediment and nonpoint source pollutant transport off site resulting from runoff associated with increased impervious surfaces. Proper geotechnical and subsurface characterization would minimize potential impacts resulting from sinkhole development.	Impacts to topography and geology would be negligible. Direct, long-term, minor impacts to soils would be expected. Implementation of soil and erosion control measures consistent with Fort Detrick and Maryland State regulations and guidelines would reduce impacts. Implementation of a stormwater management plan would minimize potential for soil erosion, stream channel scour, and sediment and nonpoint source pollutant transport off site resulting from runoff associated with increased impervious surfaces. Proper geotechnical and subsurface characterization would minimize potential impacts resulting from sinkhole development.	Impacts to topography and geology would be negligible. Direct, long-term, minor impacts to soils would be expected. Implementation of soil and erosion control measures consistent with Fort Detrick and Maryland State regulations and guidelines would reduce impacts. Implementation of a stormwater management plan would minimize potential for soil erosion, stream channel scour, and sediment and nonpoint source pollutant transport off site resulting from runoff associated with increased impervious surfaces. Proper geotechnical and subsurface characterization would minimize potential impacts resulting from sinkhole development.	Impacts to geology, topography, and soils associated with relocation of seven high frequency antennas from Area A to Area B would be expected to be negligible. Adherence to Fort Detrick and Maryland State regulations and guidelines would minimize potential adverse effects associated with erosion and sedimentation.	Impacts to geology, topography, and soils associated with the installation of the perimeter fence would be expected to be negligible.	Direct short-term and long-term, minor adverse impacts to geology, topography, and soils would be expected as a result of implementing the six proposed projects on Area B. Approximately 150 acres of land on Area B would be utilized for the six projects. The largest land disturbance would be associated with development of the golf course and would encompass approximately 125 acres.  Implementation of soil and erosion control measures consistent with Fort Detrick and Maryland State regulations and guidelines would reduce impacts. Implementation of a stormwater management plan would minimize potential for soil erosion, stream channel scour, and sediment and nonpoint source pollutant transport off site resulting from runoff associated with increased impervious surfaces. Proper geotechnical and subsurface characterization would minimize potential impacts resulting from sinkhole development.	No Impact.
<i>Water Resources</i>	<p>Direct, short-term and long-term, minor adverse effects to water resources would be expected due to erosion and transport of sediments into surface water features and wetlands and potential direct and rapid transport of surface water runoff into the groundwater due to surface and subsurface characteristics. Impacts resulting from impervious surfaces and increased runoff would be expected. Implementation of BMPs in accordance with Fort Detrick and Maryland erosion and sediment control and stormwater management guidelines would reduce potential for impacts.</p> <p>Direct, short-term and long-term, minor adverse effects would be expected resulting from use of pesticides, herbicides and fertilizers for golf course management. There is potential for transport turf management chemicals across and off site by wind and/or water if their application is not properly timed and managed. Direct transport of these chemicals to groundwater could occur due to solution weathering in the vicinity of Area B. Implementation of a Golf Course Management Plan would reduce the potential for adverse impacts to water resources on or in the vicinity of Area B.</p> <p>Direct, long-term, minor adverse effects to wetlands would be expected. Wetlands would be avoided to the maximum extent possible. Unavoidable impacts would be minimized and mitigated through use of INRMP guidelines, Section 404 of the Clean Water Act and Maryland’s Nontidal Wetlands Act.</p> <p>No impacts to Wild and Scenic Rivers are expected to occur.</p> <p>No impacts to the 100-year floodplain. Facilities and structures associated with golf course would be designed and located to avoid encroachment into the 100-year floodplain</p>	<p>Direct, short-term, minor adverse effects to water resources would be expected resulting from erosion and sedimentation during site development and increased impervious surfaces. Implementation of BMPs in accordance with Fort Detrick and Maryland erosion and sediment control and stormwater management guidelines would reduce potential for impacts.</p> <p>No impacts to wetlands, to 100-year floodplains, or to Wild and Scenic Rivers are expected to occur.</p>	<p>Direct, short-term, minor adverse effects to water resources would be expected resulting from erosion and sedimentation during site development and increased impervious surfaces. Implementation of BMPs in accordance with Fort Detrick and Maryland erosion and sediment control and stormwater management guidelines would reduce potential for impacts.</p> <p>No impacts to wetlands, to 100-year floodplains, or to Wild and Scenic Rivers are expected to occur.</p>	<p>Direct, short-term, minor adverse effects to water resources would be expected resulting from erosion and sedimentation during site development and increased impervious surfaces. Implementation of BMPs in accordance with Fort Detrick and Maryland erosion and sediment control and stormwater management guidelines would reduce potential for impacts.</p> <p>No impacts to wetlands or to Wild and Scenic Rivers are expected to occur.</p> <p>No impacts to the 100-year floodplain. Facilities and structures associated with RV Park would be designed and located to avoid encroachment into the 100-year floodplain</p>	<p>No impacts to water resources, wetlands, 100-year floodplain or to Wild and Scenic Rivers are expected.</p>	<p>Impacts to water resources would be expected to be negligible. Water resources and wetlands will be avoided if the fence is moved 20 to 30 feet within the perimeter of Area B.</p> <p>No impacts to wetlands or to Wild and Scenic Rivers are expected to occur.</p>	<p>Direct short-term and long-term, minor adverse impacts to water resources would be expected as a result of implementing the six proposed projects on Area B. Approximately 12 acres of impervious surfaces would be created as a result of developing the six projects on Area B. Implementation of BMPs in accordance with Fort Detrick and Maryland erosion and sediment control and stormwater management guidelines would reduce potential for impacts.</p> <p>Refer to Golf Course for discussion of the potential groundwater and wetland impacts.</p> <p>No impacts to wetlands or to Wild and Scenic Rivers are expected to occur.</p> <p>No impacts to the 100-year floodplain. Facilities and structures associated with RV Park would be designed and located to avoid encroachment into the 100-year floodplain</p>	No Impact.

TABLE ES-1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES – CONT.

Resource	18-Hole Golf Course	Paintball Field	Indoor Shooting Range	Recreational Vehicle (RV) Park	Relocation of Seven High Frequency Antennas	Area B Perimeter Fence	Combined Effects	No Action
<b>Biological Resources</b>	<p>Direct and indirect, short-term and long-term, minor adverse effects to wildlife and wildlife habitats would be expected. Vegetation removed during site development would consist primarily of pasture land species that have been intensely grazed in the past. Compliance with the Forest Conservation Act (FCA) would minimize impacts associated with tree removal. Following construction, undeveloped areas would be replanted. Wildlife species that currently use the area would be displaced during construction. Construction activities would likely result in mortality of some less mobile fauna that may utilize the open field environment. Increased human use and possible noise associated with operation of the facility would preclude some species from moving back into the area following development.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Direct and indirect, short-term and long-term, minor adverse impacts to wildlife and wildlife habitats would be expected. Compliance with the FCA, if tree removal is necessary would minimize impacts. Following construction, undeveloped areas would be replanted. Over time, use of the wooded area as a paintball field would be expected to result in some damage to vegetation in the area as a result of trampling, compaction, and direct impact. Increased human use and possible noise associated with operation of the facility would preclude some species from moving back to the area following development.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Direct and indirect, short-term and long-term, minor adverse impacts to wildlife and wildlife habitats would be expected. Vegetation removed during site development would consist primarily of pasture land species that have been intensely grazed in the past. Following construction, undeveloped areas would be replanted. Trees planted on the berm surrounding the facility could potentially provide habitat. Increased human use and possible noise associated with operation of the facility would preclude some species from moving back into the area following development.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Direct and indirect, short-term and long-term, minor adverse impacts to wildlife and wildlife habitats would be expected. Following construction undeveloped areas would be replanted. The area proposed for the RV Park is currently almost entirely surrounded by development and human activities in these areas would be expected to preclude species sensitive to human presence from currently occurring in the area.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Direct, long-term, minor adverse effects to wildlife would be expected. Placement of the towers in Area B has the potential to result in the mortality of some avian species that may fly through the area. Existing studies indicate, however, that most avian species mortality caused by collisions with towers, guy wires and other support structures occurs in association with tall towers (&gt;200 feet) that are lighted and supported by guy wires.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Indirect, long-term, minor adverse effects to wildlife and wildlife habitat would be expected. Placement of the new eight foot fence topped with barbed wire would restrict some wildlife species (i.e. small mammals) from leaving or accessing the Area B. Over time, restriction of mobility on and off of the site could limit genetic variability and affect the health of species populations that become restricted to the site. Fort Detrick is developing a Deer Management Plan to control the deer population for Area A and Area B.</p> <p>No effects to federal or state listed threatened or endangered species would be expected.</p>	<p>Direct and indirect, short-term and long-term, minor adverse effects to wildlife and wildlife habitats would be expected as a result of developing the six proposed projects. Refer to the summary of each project in the matrix.</p>	No Impact.
<b>Air Quality</b>	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	Emissions would be below the de minimus values. Minor impacts.	No Impact.
<b>Cultural Resources</b>	No Impacts. A Phase I investigation determined that Prehistoric Site 18FR679, which is located within the proposed project area of the golf course, lacks integrity and archeological research potential and is not considered eligible for or listed on the National Register of Historic Places.	No Impacts. No historical sites have been identified in previous archeological or historic architecture investigations. An adjacent cemetery located along Kemp Road would be protected from paintballs with the installation of a 20 foot high and approximately 100 foot long nylon mesh fence supported by telephone poles.	No Impacts. The proposed location of the Indoor Shooting Range does not occur within the vicinity of the cemetery along Kemp Road or archeological sites 18FR679 and 18FR682.	Impacts would be negligible. The proposed location of the RV Park does not occur within the vicinity of the cemetery along Kemp Road or archeological sites 18FR679 and 18FR682.	No Impacts. The proposed location for the Seven Antennas does not occur within the vicinity of the cemetery along Kemp Road or archeological sites 18FR679 and 18FR682.	No impacts. The historic lime kiln site (18FR682) is located approximately 30 feet inside the existing perimeter fencing of Area B along the northern boundary. A Phase II study indicated that there is a lack of archeological and structural integrity; therefore, the site does not qualify for NRHP listing and no further investigation of this site is warranted. If the perimeter fence is set back at this location, it would be routed to avoid the lime kiln site.	The combination of construction and operation of the six proposed projects and the changing of land use would not adversely impact cultural resources on Area B.	No Impact.
<b>Hazardous Material and Waste</b>	<p>Short-term and long-term minor adverse impacts. Storage, use, and disposal of pesticides and POL would comply with Federal, state, local, and DA regulations. FD REG 200-3, FD PAM 200-3a, and the Fort Detrick IPMP would also apply. The Fort Detrick ICP would need to be updated.</p> <p>Prior to construction, RIs and remediation actions for the three areas of environmental concerns that occur within the proposed area for the golf course would need to be completed in accordance with applicable federal and state regulations and approvals. Upon completion of the remedial actions adverse impacts associated with the potential disturbance of the hazardous waste would not be considered significant.</p>	<p>No adverse impacts would be expected during the construction and operation of the Paintball Fields. Paintball Field 1 is not located within an area of environmental concern; however, Paintball Fields 2, 3, and 4 are located within an area of environmental concern: Area B-Skeet Range. Due to previous remediation measures and limited sampling performed during the removal, it is anticipated that no further remedial actions would be needed for this site</p> <p>Site is adjacent to Area B-18, an historic landfill. Fencing would be installed to restrict access to Area B-18 and its associated sinkholes.</p> <p>No hazardous waste would be generated and no pesticides would be used for the maintenance of the paintball field. The paintball capsule consists of a gelatin exterior filled with water-soluble dye that is a non-hazardous substance.</p>	<p>No adverse impacts. Management of hazardous lead shot/particulates and recycling of clay pigeons and brass casings would occur. The Navy Environmental Health Center Technical Manual NEHC-TM6290.99-10 Rev.1, <i>Indoor Firing Ranges Industrial Hygiene Technical Guide</i>, will serve as a reference to assist in recognizing, evaluating and controlling safety and health hazards. A lead compliance plan will be developed to comply with the OSHA Construction Lead Standard, 29 CFR 1926.62. to determine the proper process for managing lead shot/particulates and recycling lead shot and brass casings.</p>	<p>Impacts would be negligible. The proposed location of the RV Park does not occur within or adjacent to any areas considered as an environmental concern on Area B. Additionally, no hazardous waste would be produced by the operation of the RV Park.</p> <p>Potential POL spills and leaks could occur; therefore, the RV Park needs to be identified in the ICP and a spill prevention and clean-up program established.</p>	No impacts. The proposed location of the seven antennas in the northern section of Area B does not occur within or adjacent to any areas considered as an environmental concern on Area B. Additionally, no hazardous waste will be produced by the operation of the antennas.	Impacts would be negligible. Locating the new perimeter 20 to 30 feet inside the existing perimeter fence could disturb two areas of environmental concerns: Area B-11 and B-6. Setbacks of 20 to 30 would not occur in this area to avoid exposure to hazardous waste.	<p>Short-term and long-term, minor adverse impacts would be expected. The golf course and the Indoor Shooting Range would require storage, use, and disposal of hazardous material and waste. Proper management and disposal of the hazardous material/wastes, through the adherence to the Fort Detrick ICP and other federal and state requirements, would eliminate significant adverse impacts associated with hazardous material and wastes. No hazardous materials and wastes would be used or generated due to the operation of the Paintball Fields, RV Park, the high frequency antennas, or the perimeter fence.</p> <p>Constructing the six projects would require soil disturbance for earth shaping, building foundations, roads, sidewalks, parking lots, and trenching for utility lines. Completion of RIs and remediation actions, as required by federal and state regulations, would be required prior to disturbing any soils located within an area of environmental concern for the area of proposed disturbance.</p>	No impacts; however, beneficial impacts associated with the improvement of security for Area B would not occur.

TABLE ES-1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES – CONT.

Resource	18-Hole Golf Course	Paintball Field	Indoor Shooting Range	Recreational Vehicle (RV) Park	Relocation of Seven High Frequency Antennas	Area B Perimeter Fence	Combined Effects	No Action
<i>Land Use</i>	Direct, long-term, minor impacts would be expected. The proposed golf course is considered a recreation land use. The current land use for the proposed area for the golf course is agrifield. Area B is currently surrounded by residential land use to the north, west, and south and government land use (Frederick County Office buildings) to the east. Recreation land use is considered to be consistent with the surrounding land uses.	Direct, long-term, minor impacts would be expected. The proposed Paintball Fields are considered a recreation land use. The current land use for the proposed area for the Paintball Fields is agrifield. Area B is currently surrounded by residential land use to the north, west, and south and government land use (Frederick County Office buildings) to the east. Recreation land use is considered to be consistent with the surrounding land uses.	Direct, long-term, minor impacts would be expected. The proposed Indoor Shooting Range is considered a recreation land use. The current land use category for the proposed area of the Indoor Shooting Range is agrifield and landfill (reserved for future landfill expansion). Area B is currently surrounded by residential land use to the north, west, and south and governmental land use to the east. Recreation land use is considered to be consistent with the surrounding land uses. The current landfill land use proposed for conversion to recreation could be converted back to the landfill, if expansion is required.	No impacts. The proposed RV Park site considered a recreation land use according to the land use categories under the 2003 Land Use Plan for Fort Detrick. The current land use category for the proposed area of the RV Park is recreation.	Direct, long-term, minor impacts are expected. The existing location of the seven antennas in Area A is delineated as agrifield under the 2003 Land Use Plan for Fort Detrick. The current land use category for the proposed seven antennas in Area B is training. This proposed area is also adjacent to off installation residential land use. The adjacent residential land use to Area B and the proposed area for the seven antennas is separated by a forested buffer.	Impacts would be negligible.	Direct long-term, minor adverse and beneficial impacts would be expected as a result of changing the land use zoning plan for Area B from an agricultural mission to a recreational mission. No impacts are expected to the life capacity of the landfill; if needed the area converted to recreational land use could be converted back for landfill expansion if required. Converting Area B from an agricultural to a recreational land use would provide beneficial impacts as related to the missions and needs of the MWR program, the Fort Detrick SPO and PMO, the MARS program. Also, improved landscaping and improved and regular maintenance programs associated with the proposed projects would result in a long-term beneficial impacts on Area B.	No Impacts; however, associated with the introduction of recreation land use to Area B would not occur.
<i>Traffic, Roadways, and Transportation Systems</i>	Minor short-term impacts are expected during construction. During operation impacts are expected to be long-term and minor. Peak use could generate up to 640 trips per day. Trips would be staggered throughout the day and would occur primarily on the weekends.	Negligible impacts are expected during construction and operation of the Paintball Fields. Peak use could generate up to 220 trips per day. Trips would be staggered throughout the day and would occur primarily on the weekends.	Minor short-term impacts are expected during construction. During operation impacts are expected to be long-term and minor. Peak use could generate up to 440 trips per day. Trips would be staggered throughout the day and would occur primarily on the weekends.	Minor short-term impacts are expected during construction. During operation impacts are expected to be negligible. Peak use could generate up to 50 trips per day. Trips would be staggered throughout the day and would occur primarily on the weekends.	Minor short-term impacts are expected during construction. During operation impacts are expected to be negligible. Operation of the facility would generate 2 or 3 vehicle trips per day.	Minor short-term impacts are expected during construction.	Short-term minor impacts would occur during construction and long-term minor impacts would occur during operation. Summation of the estimated peak vehicle trips generated for each proposed project results in the potential generation of 1,350 daily vehicle trips during peak use of the 18-Hole Golf Course, Paintball Fields, Indoor Shooting Range, and the RV Park. Peak vehicle trips generated from the operation of the recreational facilities would likely occur on Saturdays or Sundays between the months of April and September. These vehicle trips would be staggered throughout day and would not occur at one specific time of day (i.e., morning or evening rush hours).	No Impacts.
<i>Infrastructure</i>	Direct, short-term, minor impacts are expected for potable water and sewer service. Fort Detrick's WTP and WTPP have capacity to provide required water and sewer service. Feeder lines for both water and sewer would need to be installed. Golf course irrigation water would be provided by onsite surface water.  Direct, short-term, minor impacts are expected for power supply. Transmission line from Area A to Area B is nearing capacity. Upgrading this transmission line may be required.	Direct, short-term, minor impacts are expected for potable water and sewer service. Fort Detrick's WTP and WTPP have capacity to provide required water and sewer service. Feeder lines for both water and sewer would need to be installed.  Direct, short-term, minor impacts are expected for power supply. Transmission line from Area A to Area B is nearing capacity. Upgrading this transmission line may be required.	Direct, short-term, minor impacts are expected for potable water and sewer service. Fort Detrick's WTP and WTPP have capacity to provide required water and sewer service. Feeder lines for both water and sewer would need to be installed.  Direct, short-term, minor impacts are expected for power supply. Transmission line from Area A to Area B is nearing capacity. Upgrading this transmission line may be required.	Direct, short-term, minor impacts are expected for potable water and sewer service. Fort Detrick's WTP and WTPP have capacity to provide required water and sewer service. Feeder lines for both water and sewer would need to be installed.  Direct, short-term, minor impacts are expected for power supply. Transmission line from Area A to Area B is nearing capacity. Upgrading this transmission line may be required.	Direct, short-term, minor impacts are expected for potable water and sewer service. Fort Detrick's WTP and WTPP have capacity to provide required water and sewer service. Feeder lines for both water and sewer would need to be installed.  Impacts are negligible. Building 1224, the Communication Building, which currently supports the operation of the two antennas on Area B, is provided with electric power and upgrading of power transmission may be required.	No Impacts	With regard to water and sewer, impacts would be minor. Combined operations of the proposed projects would require approximately 11,245 gpd (4.1 mgd) of water. Combined operations of the proposed projects would generate approximately 14,620 gpd (5.3 mgd) of wastewater.  Combined operations of the proposed projects would require approximately 1,054,000 kW/hrs per year or 3,900 kW/hrs per day during peak use (i.e., summer months on weekends) of electricity. The main power supply to Area B from Area A (an overhead 100 amp line) is nearing capacity. Upgrading the existing main transmission line from Area A to Area B may be required to provide adequate power to operate the proposed projects in Area B and is unlikely to significantly impact the total energy consumption of the Frederick area or Fort Detrick.	No Impacts.
<i>Environmental Justice and Protection of Children</i>	No Impacts	No Impacts	No Impacts	No Impacts	No Impacts.	No Impacts	No Impacts	No Impacts.

TABLE ES-1: SUMMARY OF ENVIRONMENTAL CONSEQUENCES – CONT.

Resource	18-Hole Golf Course	Paintball Field	Indoor Shooting Range	Recreational Vehicle (RV) Park	Relocation of Seven High Frequency Antennas	Area B Perimeter Fence	Combined Effects	No Action
Noise	Short-term minor impacts associated with normal construction activities would be expected to occur. Long-term minor impacts associated with the operation of the golf course (e.g., mowing) would be expected.	Noise impacts would be negligible during construction. The operation of the paintball field would generate long-term minor noise impacts associated with communication of paintball players (e.g., yelling).	Short-term minor impacts associated with normal construction activities would be expected to occur. Minor long-term impacts are expected. The fully enclosed small arms shooting range and the skeet shooting range, enclosed by three heavy canvas walls and top, are both fully enclosed by a large tent. To further attenuate noise a 4 to 6 foot high earth berm with at least three rows of evergreen trees would surround the tent. Limitation to a 3-dram equivalent powder load would reduce the impacts to noise as well. A noise analysis will also be completed to determine any further facility design requirements that may be needed to mitigate potential noise impacts to the surrounding residential communities	Short-term minor noise impacts associated with normal construction activities would be expected. During operation, long-term minor noise impacts would be expected resulting from RVs entering and exiting the RV Park, air conditioning units, occasional generator operations and other noises associated with a park/picnic atmosphere. RV generators are typically design to emit very little noise and would only operate during power outages. Each RV site would be equipped with a 50 amp hook-up; therefore, the use of RV generators would be infrequent.	Short-term minor noise impacts associated with the construction and relocation activities would be expected. During operation, noise impacts would be negligible.	Short-term minor noise impacts associated with construction.	Direct short-term and long-term minor adverse impacts. Direct short-term minor adverse impacts would be associated with the project construction. Construction would only take place during the daytime (and not at night) to adhere to local and state noise ordinances. The combined operation of the proposed facilities would increase automobile traffic on adjacent local roads during daytime hours (especially during the summer months on the weekends), which could potentially cause a minor increase in noise in the surrounding communities. To provide noise attenuation the majority of Area B is surrounded by a forested buffer, which has either been increased or enhanced by reforestation.	No Impact.
Human Health and Safety	Minor adverse impacts may occur during both the construction and operation of the golf course. Impacts to the health and safety of construction workers would be minimized by adherence to accepted work standards and OSHA regulations. Also, prior to construction of the 18-Hole Golf Course, RIs and remediation actions for the three areas of environmental concerns would need to be completed in accordance with applicable federal and state regulations and approvals. Upon completion of the remedial actions potential adverse impacts associated with human health and safety would be considered minor.  Golf course operations would require storage, use, and disposal of hazardous material and waste. Potential adverse impacts to human health and safety are expected to be minor through the adherence to FD REG 200-3, FD PAM 200-3a, and FD PAM 200-3b.	Minor adverse impacts associated with construction of the four Paintball Fields and support facilities would be expected. Adherence to applicable OSHA regulations would minimize potential adverse impact to workers.  A standard operating procedure (SOP) for operation of the four Paintball Fields would be developed to minimize potential adverse impacts to facility workers and participants. Additionally, a 20-foot high netting would be constructed at the northwest corner of Paintball Field 1 to stop paintballs from entering the cemetery or reaching vehicles along Kemp Road.	Minor adverse impacts associated with construction of the Indoor Shooting Range and support facilities would be expected. Adherence to applicable OSHA regulations would minimize potential adverse impact to workers.  Minor adverse impacts to human health and safety are expected with the operation of the Indoor Shooting Range. Adherence to the Navy Environmental Health Center Technical Manual NEHC-TM6290.99-10 Rev.1, <i>Indoor Firing Ranges Industrial Hygiene Technical Guide</i> , will assist in recognizing, evaluating and controlling safety and health hazards. Noise attenuating measures, such as, enclosing the facility; constructing a berm covered with trees around the entire facility; and limit powder loads to 3-drams, would be implemented to reduce impacts to human health and safety. The facility would be an enclosed facility located in the center of Area B, which would be completely surrounded by a modified perimeter fence to decrease accessibility to the site.	Minor adverse impacts associated with construction of the RV Park and support facilities would be expected. Adherence to applicable OSHA regulations would minimize potential adverse impact to workers.  No impacts to human health and safety are expected with the operation of the RV Park.	Minor adverse impacts associated with relocation and construction of the seven high frequency antennas and support facilities would be expected. Adherence to applicable OSHA regulations would minimize potential adverse impact to workers.  Adherence to OSHA and the Federal Communications Commission (FCC) regulations and requirements, such as fencing the antennas and marking with appropriate warning signs, would minimize potential adverse impacts associated with human health and safety from exposure to radio frequency fields.	Minor adverse impacts associated with construction of the Indoor Shooting Range and support facilities would be expected. Adherence to applicable OSHA regulations would minimize potential adverse impact to workers  However, beneficial impacts would also be expected. The modified perimeter fence will decrease accessibility to Area B, which in turn, will further limit human safety risks associated with proposed and existing operations on Area B	The construction of the all six projects would require soil disturbance for earth shaping, building foundations, roads, sidewalks, parking lots, and trenching for utility lines. Completion of RIs and remediation actions, as required by federal and state regulations, would be required prior to disturbing any soils located within an area of environmental concern for the area of proposed disturbance. Upon completion of the remedial actions, adverse impacts associated with human health and safety would be considered not significant.	No impacts; however, beneficial impacts associated with the improvement of security for Area B would not occur.



**TABLE ES-2 – SUMMARY OF MITIGATION MEASURES**

Affected Resource	Mitigation Measures
<i>Geology, Topography, and Soils</i>	<ul style="list-style-type: none"><li>• Implement soil and erosion and sediment control measures consistent with Fort Detrick and state regulations (e.g., appropriate BMPs).</li><li>• Perform proper geotechnical and subsurface characterization to determine the location or potential development of sinkholes and/or depressions.</li></ul>
<i>Water Resources</i>	<ul style="list-style-type: none"><li>• Prepare and implement a stormwater management plan consistent with Fort Detrick and state regulations.</li><li>• Implement soil and erosion and sediment control measures consistent with Fort Detrick and state regulations (e.g., appropriate BMPs).</li><li>• Develop a Golf Course Management Plan that specifies proper application of turf management chemicals.</li><li>• If needed, the design and operation of an onsite sewage disposal system should conform to state regulations.</li></ul>
<i>Biological Resources</i>	<ul style="list-style-type: none"><li>• If needed, a Forest Management Plan should be developed according to regulations required by the Maryland Forest Conservation Act.</li><li>• Disturbed undeveloped areas following construction should be replanted using native vegetation.</li><li>• Limit the removal of existing trees and shrubs.</li></ul>
<i>Cultural Resources</i>	<ul style="list-style-type: none"><li>• Avoid the historic lime kiln site and protect area during construction with a buffer.</li></ul>

**TABLE ES-2: SUMMARY OF MITIGATION MEASURES – CONT.**

Affected Resource	Mitigation Measures
<i>Hazardous Materials and Waste</i>	<ul style="list-style-type: none"> <li>• Add the proposed projects to the ICP and the IPMP.</li> <li>• Store, use, and dispose of hazardous materials and wastes in accordance with applicable regulations (i.e., Fort Detrick 200-3 and 200-3a).</li> <li>• Develop an IPMP simultaneously with the Golf Course Management Plan.</li> <li>• Complete RIs for the areas of environmental concerns located in the proposed golf course area prior to golf course construction. Upon completion of RIs determine and implement appropriate remedial actions. Insure appropriate land restrictions according to remedial actions are taken.</li> <li>• The construction of the all six projects would require soil disturbance for earth shaping, building foundations, roads, sidewalks, parking lots, and trenching for utility lines. Completion of RI investigations and remediation actions, as required by federal and state regulations, would be required prior to disturbing any soils located within an area of environmental concern for the area of proposed disturbance.</li> <li>• Implement a management program for the collection and disposal of lead shot/particulates, clay pigeons, and brass casings at the proposed Indoor Shooting Range.</li> </ul>
<i>Infrastructure</i>	<ul style="list-style-type: none"> <li>• Install water-efficient control devices, such as low-flow showerheads, faucets, and toilets, in all new facilities</li> <li>• Install energy-efficient interior and exterior lighting fixtures and controls in all new facilities. Use EnergyStar energy efficiency devices in buildings.</li> <li>• Complete further studies to determine weather the replacement of the existing 100 ampere transmission line from Area A to Area B to meet projected electrical demands is necessary.</li> </ul>
<i>Environmental Justice and Protection of Children</i>	<ul style="list-style-type: none"> <li>• Secure construction vehicles and equipment when not in use.</li> <li>• Place barriers and “No Trespassing” signs around construction site.</li> </ul>

**TABLE ES-2: SUMMARY OF MITIGATION MEASURES – CONT.**

Affected Resource	Mitigation Measures
Noise	<ul style="list-style-type: none"> <li>• Fully enclose structure for small arms shooting inside the tent.</li> <li>• Place skeet shooting area inside the tent and enclose it on three sides and the top with heavy canvas material to attenuate noise and to prevent shotgun shot from leaving the designated area. Final design of skeet shooting area may consist of another material such as concrete blocks, wood, etc.</li> <li>• Surround tent by a 4- to 6-foot high berm planted with at least three rows of evergreen trees to reduce noise levels.</li> <li>• Use 3-dram equivalent powder load to reduce noise levels.</li> <li>• Complete noise analysis during facility feasibility studies to determine further design requirements to mitigate potential noise impacts.</li> </ul>